Please add the following new claims.

10. (New) A method of generating Large-Area Code-Division-Multiple-Access (LA-CDMA) codes, the method comprising:

generating a plurality of pulse-trains each having a plurality of pulses separated by intervals, wherein each one of the plurality of intervals of a respective one of the pulse-trains is unequal in duration to another interval of the respective pulse-train; and

assigning a polarity to each of the pulse thus forming at least one code word from each of the pulse-trains.

11. (New) The method of claim 10, wherein each pulse has a same duration, T, and wherein at least one of the intervals is longer than a shortest one of the intervals by an odd integer multiple of the duration T.

12.(New) The method of claim 10, wherein the duration of any one interval is unequal to a sum of the durations of any other two intervals.

13. (New) The method of claim 10, wherein the polarity of each pulse is one of +1, -1 and 0.

14. (New) The method of claim 10, wherein each code word is unique within the plurality of code words.

15. (New) The method of claim 10, wherein:

an auto-correlation function of any one of the code words has a zero-correlation window;

and a width of the zero-correlation window is equal to two times a shortest one of the intervals.

16. (New) The method of claim 10, wherein a cross-correlation function between any two of the code words has side lobes equal to one of zero, plus amplitude squared and minus amplitude squared.

17. (New) The method of claim 10, wherein: a cross-correlation function between any two of the code words has a zero-correlation window; and

a width of the zero-correlation window is equal to two times a shortest one of the intervals.

18. (New) The method of claim 10 further comprising increasing a duty ratio of each of the code words.

19. (New) The method of claim 18, wherein the increasing step comprises:

representing each +1 pulse in the plurality of pulses with a positive pulse compression code; and

representing each -1 pulse in the plurality of pulses with a negative pulse compression code.

20. (New) The method of claim 18, wherein the increasing step comprises:

representing each +1 pulse in the plurality of pulses with two consecutive positive pulse compression codes; and

representing each -1 pulse in the plurality of pulses with a positive pulse compression code and a negative pulse compression code.

21. (New) The method of claim 18, wherein the increasing step comprises representing each pulse in the plurality of pulses with a Barker sequence.

22. (New) The method of claim 18, wherein the increasing step comprises:

time-offsetting a selected one of the code words to generate a plurality of shifted versions of the selected code word, and

overlapping the selected code word and the plurality of shifted versions to form a time-offset overlapped code word.

23. (New) The method of claim 22, further comprising adopting different orthogonal modulating frequencies for different shifted versions of the selected code word.

24. (New) A spread-spectrum multiple access code, wherein the spread-spectrum multiple access code is embodied in a memory of a spread-spectrum-multiple access communication system, wherein the spread-spectrum multiple access code comprises a train of pulses separated by intervals that are unequal in duration to each other and wherein the pulses each have a predetermined polarity, and wherein the spread-spectrum-multiple access communication system encodes data with the spread-spectrum multiple access code.

25. (New) The spread-spectrum multiple access code of claim 24, wherein:

each pulse has a same duration, T; and

at least one interval is longer than a shortest one of the intervals by an odd integer multiple of the duration T.

26. (New) The spread-spectrum multiple access code of claim 24, wherein any one interval is unequal in duration to a sum of any other two of the intervals.

27. (New) The spread-spectrum multiple access code of claim 24, wherein:

an auto-correlation function of the code has a zero-correlation window; and

a width of the zero-correlation window is equal to two times a shortest one of the intervals.

28. (New) The spread-spectrum multiple access code of claim 24, wherein the polarity of each pulse is one of +1, -1 and 0.

29. (New) The spread-spectrum multiple access code of claim 26, further comprising a positive compression code associated with each +1 pulse and a negative compression code associated with each -1 pulse.

30. (New) The spread-spectrum multiple access code of claim 26, further comprising a Barker sequence associated with each pulse.

31. (New) A spread-spectrum multiple access code, wherein the spread-spectrum multiple access code is embodied in a memory of a spread-spectrum-multiple access communication system, wherein the spread-spectrum multiple access code comprises a plurality of pulse compression codes each representative of one pulse of a train of pulses, wherein the pulses are separated by intervals that are unequal in duration to each other and wherein the pulses each have a predetermined polarity and wherein the spread-spectrum-multiple access communication system encodes data with the spread-spectrum multiple access code.

32. (New) The spread-spectrum multiple access code of claim 31, wherein:

each pulse has a same duration, T; and

the duration of at least one interval is longer than the duration of a shortest interval by an amount equal to an odd integer multiple of the duration T.

33. (New) The spread-spectrum multiple access code of claim 31, wherein any one interval is unequal in duration to a sum of any other two intervals.

34. (New) The spread-spectrum multiple access code of claim 31, wherein:

an auto-correlation function of the code has a zero-correlation window; and

a width of the zero-correlation window is equal to two times a shortest one of the intervals.

35. (New) The spread-spectrum multiple access code of claim 31, wherein the polarity of each pulse is one of +1, -1 and 0.